

# **MICROCHIP RESERVOIR DEVICES USING WIRELESS TRANSMISSION OF POWER AND DATA**

## **Abstract of the Disclosure**

Devices, systems, and methods are provided for wirelessly powering and/or communicating with microchip devices used for the controlled exposure and release of reservoir contents, such as drugs, reagents, and sensors. In one embodiment, the system includes (1) a microchip device comprising a substrate having a plurality of reservoirs containing reservoir contents for release or exposure; and (2) a rechargeable or on-demand power source comprising a local component which can wirelessly receive power from a remote transmitter wherein the received power can be used, directly or following transduction, to activate said release or exposure of the reservoir contents. In another embodiment, the system comprises (1) a microchip device comprising a substrate a plurality of reservoirs containing reservoir contents for release or exposure; and (2) a telemetry system for the wireless transfer of data between the microchip device and a remote controller.